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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,252	11/28/2006	David John Chapman-Jones	51407/P029US/10605267	9077

29053 7590 08/11/2009  
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DALLAS, TX 75201-2784

EXAMINER
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PATEL, SHEFALI DILIP

ART UNIT	PAPER NUMBER
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3767

MAIL DATE	DELIVERY MODE
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08/11/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/574,252	CHAPMAN-JONES, DAVID JOHN	
	<b>Examiner</b>	<b>Art Unit</b>	
	SHEFALI D. PATEL	3767	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 26 and 29-39 is/are pending in the application.
- 4a) Of the above claim(s) 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26, 29-33 and 35-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on June 17, 2009, has been entered.

### ***Acknowledgments***

2. In the reply, filed on June 17, 2009, Applicant amended claims 29, 36, and 38.
3. In the final rejection of December 19, 2008, Examiner objected to claim 36 for a minor informality. Applicant amended said claim. Objection is withdrawn.
4. Examiner rejected claim 38 under 35 USC 112, 2<sup>nd</sup> paragraph, for insufficient antecedent basis for claim terms. Applicant amended claim 38 to depend upon claim 37. Rejection is withdrawn.
5. Currently, claims 26, 29-33, and 35-39 are under examination.

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***Response to Arguments***

6. Applicant's arguments with respect to claims 26, 29-33, and 35-39 have been considered but are moot in view of the new ground(s) of rejection, based on the amendments made to independent claim 29.

***Claim Objections***

7. Claims 32 and 36 are objected to because of the following informalities:

In regards to claim 32, the term "0.1s" should be corrected as "0.1 s".

In regards to claim 36, the term "programme" should be corrected as "program".

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 26, 29-32, 35, 36, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avrahami (US 6,148,232).

In regards to claim 29, Avrahami teaches a device (Figure 7, electrode assembly [150]) for treating tissue comprising:

a. a pair of electrodes (electrodes [120]) at a treatment area (skin [22]) (Figure 7)

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- b. a control unit (AC current source [154]) for passing alternating current to the treatment area via the electrodes [120] and for constantly varying the frequency of the alternating current (column 9, lines 1-4)(column 17, lines 25-29)

The current embodiment of Avrahami (Figure 7) does not appear to teach a further dressing affixed to the electrodes and applied to the treatment area. Avrahami teaches another embodiment (Figure 1A) in which a dressing (skin patch [40]) is affixed to electrodes (electrodes [60]) and applied to a treatment area (skin [22]). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the electrodes, of the device of the current embodiment of Avrahami (Figure 7), to be affixed to a dressing, as taught by the other embodiment of Avrahami (Figure 1A), as the dressing will preferably fix the device to a suitable area of the subject's skin, and the dressing will provide storage for the active substance to be administered to the patient (column 11, lines 38-40)(column 12, lines 3-11).

In regards to claim 26, in a modified device of Avrahami, the current embodiment of Avrahami (Figure 7) does not teach both a control unit and a dressing. The other embodiment of Avrahami (Figure 1A) teaches a control unit (control unit [30]) that is integrated with the dressing [40] (column 12, lines 24-26). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the control unit, of the modified device of Avrahami, to be integrated with the dressing, as taught by the other embodiment of Avrahami (Figure 1A), as a preferential obvious design choice to the user (column 12, lines 24-26), since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

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In regards to claim 30, in a modified device of Avrahami, Avrahami is silent about whether the alternating current is varied between 50 and 500 microamps. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the alternating current to be varied between 50 and 500 microamps, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges (current range) involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In regards to claim 31, in a modified device of Avrahami, Avrahami does not specifically teach that the frequency of the alternating current is varied between 10 and 900 hertz, as Avrahami teaches that in a preferred embodiment, the frequency of the alternating current is above about 100 hertz (column 8, lines 65-67). However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the frequency of the alternating current to be varied between 10 and 900 hertz, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges (frequency range) involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

In regards to claim 32, in a modified device of Avrahami, Avrahami is silent about whether the time period between each variation of amplitude an/or frequency is 0.1 s. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the time period between each variation of amplitude an/or frequency to be 0.1 s, since it has been held that discovering the optimum value of a result effective variable (time period) involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

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In regards to claim 35, in a modified device of Avrahami, the current embodiment of Avrahami (Figure 7) is silent about whether the control unit [154] comprises a housing and electronic circuitry in the housing for connecting to the pair of electrodes [120]. Avrahami teaches another embodiment (Figure 1A) in which a control unit [30] comprises a housing (switching unit [50]) with electronic circuitry (“circuitry”) in the housing for connecting to the pair of electrodes [60] (Figure 3). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the control unit, of the modified device of Avrahami, with a housing and electronic circuitry, as taught by the other embodiment of Avrahami (Figures 1A and 3), as the housing and electronic circuitry will provide a means for actively controlling the voltage applied to the electrodes and for monitoring the current flow to the electrodes in order to determine whether a characteristic of the current has surpassed a threshold (column 13, lines 20-36).

In regards to claim 36, in a modified device of Avrahami, the current embodiment of Avrahami (Figure 7) does not teach that the electronic circuitry comprises memory storing at least one program for determining the amplitude, frequency, and waveform of alternating current supplied to the electrodes. Avrahami teaches another embodiment (Figure 1A) in which the electronic circuitry comprises memory (memory unit [89]) storing at least one program for determining the amplitude, frequency, and waveform of current supplied to the electrodes [60] (column 13, lines 66-67 to column 14, lines 1-5). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the electronic circuitry, of the modified device of Avrahami, with a memory, as taught by the other embodiment of Avrahami (Figures 1A and 3), as such will allow the control unit to scan through each of the

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electrodes, detect a present current flow value, store this value in the memory, compare the value with prior values for the same electrode, and regulate the potential of that electrode responsive to the current measurement (column 13, lines 66-67 to column 14, lines 1-5).

In regards to claim 39, in a modified device of Avrahami, the current embodiment of Avrahami (Figure 7) does not teach a removable tab that connects the electrodes [120] and only allows current to pass once the tab is removed. Avrahami teaches another embodiment (Figure 1A) in which a removable tab (protective tab, not shown) is removed in order to expose the electrodes [60] for current delivery (column 12, lines 14-18). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify electrodes, of the modified device of Avrahami, with a removable tab, as taught by the other embodiment of Avrahami (Figure 1A), as the removable tab will act as a protective means for not exposing the electrodes and preventing the accidental delivery of current before the device is to be used (column 12, lines 14-18).

10. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Avrahami, as applied to claim 29 above, and further in view of Tapper (US 2002/0173743).

In regards to claim 33, in a modified device of Avrahami, Avrahami is silent about whether the alternating current has a ramp waveform. Tapper teaches a device for treating tissue (Abstract), wherein alternating current has a ramp waveform (paragraphs [0016][0056]). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the alternating current, of the modified device of Avrahami, to have a ramp waveform, as taught by Tapper, as the relatively slow rise and decay evident from the leading



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and trailing edges of the ramp waveform provides the desirable electrical ramping up and down of each half cycle of each alternating current signal in order to minimize shock sensations (paragraph [0056]).

11. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avrahami, as applied to claim 36 above, and further in view of Jacobsen et al (US 5,860,957).

In regards to claims 37 and 38, in a modified device of Avrahami, Avrahami does not teach that the control unit comprises an i/o port and a wireless transceiver in order to wirelessly connect an external device to the control unit. Jacobsen teaches a system (Figures 1-2) comprising a control unit (control pad [10]) and a dressing (drug delivery patch [20]), wherein a wireless transceiver (external host interface/wireless link [48]) allows an external device (computer, *not referenced*) to wireless connect to the control unit memory [52] for the transfer of data to and from the external device (column 7, lines 28-41). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the control unit, of the modified device of Avrahami, with a wireless transceiver interface, as taught by Jacobsen et al, as such will allow an external device (computer) to wirelessly update the program of the memory and modify the treatment regimen of the dressing device based on monitored patient parameters (column 7, lines 28-41).

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***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Miller et al (US 2002/0161323), Coston et al (US 2002/0010414), Eggers et al (US 6,117,109), and Li et al (US 2001/0044592).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHEFALI D. PATEL whose telephone number is (571) 270-3645. The examiner can normally be reached on Monday through Thursday from 8am-5pm Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin C. Sirmons can be reached on (571) 272-4965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shefali D Patel/  
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/Kevin C. Sirmons/

Supervisory Patent Examiner, Art Unit 3767